

Comparative study of intravenously administered clonidine and magnesium sulfate on hemodynamic responses during laparoscopic surgeries.

ABSTRACT

Background: Both magnesium and clonidine are known to inhibit catecholamine and vasopressin release and attenuate hemodynamic response to pneumoperitoneum. This randomized, double blinded, placebo controlled study has been designed to assess which agent attenuates hemodynamic stress response to pneumoperitoneum better.

Materials and Methods: 60 patients undergoing elective laparoscopic cholecystectomy were randomized into 2 groups of 30 each. Group M patients received 50 mg/kg of magnesium sulfate in normal saline (total volume 50 ml) over 15 minutes and group C patients received 1.5 µg/kg clonidine in 50 ml of normal saline (total volume 50 ml) before pneumoperitoneum. Blood pressure and heart rate were recorded before induction (baseline value), at the end of infusions and every 5 min after pneumoperitoneum.

Statistical Analysis: Chi-Square test was used for categorical data and ANOVA for inter-group comparison.

Results: Intravenous administration of clonidine 1.5µg/kg before pneumoperitoneum is as effective as intravenous magnesium sulfate 50mg/kg

before pneumoperitoneum in blunting the haemodynamic stress responses during laparoscopic surgeries and clonidine has lesser sedation than magnesium at extubation.

Key words: Clonidine, laparoscopic surgeires, magnesium sulfate, pneumoperitoneum